

CIVIL PREPAREDNESS AND LIMITED NUCLEAR WAR

HEARINGS
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HEARING ON CIVIL PREPAREDNESS AND LIMITED NUCLEAR WAR

WEDNESDAY APRIL 28, 1976

U.S. SENATE AND
U.S. HOUSE OF REPRESENTATIVES,
JOINT COMMITTEE ON DEFENSE PRODUCTION,
Washington, D.C.

The committee met at 10:05 a.m. in room 5302, Dirksen Senate Office Building, Hon. William Proxmire, vice chairman of the subcommittee, presiding.

Present: Senators William Proxmire and John Sparkman.

Senator PROXMIRE. The committee will come to order.

Today's hearing inaugurates a review by the Joint Committee on our Nation's civil preparedness. It is the first such congressional review in over two decades.

By civil preparedness, we mean those mainly civilian measures by which we seek to protect the lives and property of our citizens.

This is the first function of any government. A government which cannot meet this fundamental test of defending its people and the national treasure is not likely to survive for very long.

In subsequent hearings, the committee will examine the adequacy of Federal, State, and local preparedness programs, including plans for fallout shelters, strategic evacuation, preparedness exercises and drills, civil defense stockpiles, and continuity of government. Likewise, the Joint Committee will inquire into the organization of the Government for preparedness. It will also review the Nation's industrial and economic preparedness in terms of the defense industrial base.

This is an especially timely undertaking. Over the past 2 years the United States has been moving from a declared nuclear policy of mutual assured destruction to one of flexible response, or limited nuclear war.

In the minds of some eminent strategists, this implies a lowering of the nuclear weapons threshold, a quickening of the trigger finger on the missile launch console, and an increased probability of uncontrolled nuclear conflict.

But to other equally qualified experts, this shift in strategic doctrine, this shift to larger numbers of more flexible, or more versatile and accurate weapons and control systems does not undermine deterrence of nuclear war; instead, it enhances deterrence.

Well, it can't be both ways and whenever you have such a complete divergence in expert opinion, it is time for a careful review of the facts.

These hearings are also timely in that there are increasing rumors of a civil defense gap, with the Soviet Union well in the lead.

In this year's annual report, Defense Secretary Rumsfeld stated that, and I quote:

An asymmetry has developed over the years that bears directly on our strategic relationship with the Soviets and on the credibility of our deterrent posture. For a number of years, the Soviets have devoted considerable resources to their civil defense effort which emphasizes the extensive evacuation of urban populations prior to the outbreak of hostilities, the construction of shelters in outlying areas, and compulsory training in civil defense for well over half the Soviet population. The importance the Soviets attach to this program at present is indicated not only by the resources they have been willing to incur in its support, but also by the appointment of a deputy minister of defense to head this effort.

Now, the term "asymmetry" used by the Secretary sounds to a non-expert like me like a four-bit word for "gap." We have heard a great deal over the years about gaps that never materialized or proved unimportant. Yet we have spent a lot of money to eliminate the non-existent or the insignificant. It is for this reason that the committee last week published the declassified text of the 1957 Gaither Report which invented the first missile gap.

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**STATEMENT OF HON. PAUL NITZE, FORMER SECRETARY OF THE
NAVY, DEPUTY SECRETARY OF DEFENSE, AND MEMBER OF THE
SALT DELEGATION**

Mr. NITZE. Mr. Chairman, my interest in the questions which this committee is discussing began in 1944 when I was asked to be a director of the U.S. Strategic Bombing Survey. The required qualification of the directors was that they have no prior knowledge of military strategy or of air power, and could thus be presumed to be unbiased in appraising the effects of the immense U.S. strategic air effort in World War II. I spent the next 2 years in Europe and then in the Pacific in intensive work, in association with what I believe to have been the best talent available to this country, to try to understand something about both subjects. In the Pacific portion of the survey, as Vice Chairman, I was in effective command of the operation, including the detailed study of the effects of the weapons used at Hiroshima and Nagasaki.

Since that time much has changed. Weapons have increased in yield and missiles now have an intercontinental range. But these changes are hardly as revolutionary as the changes brought about by the role of effective air power in World War II and of the introduction of nuclear weapons in its closing phase. After all, the largest number of our nuclear reentry vehicles today are Poseidon warheads, each of which has an equivalent megatonnage less than twice that of the weapons used at Hiroshima and Nagasaki.

At Hiroshima and Nagasaki there was no air-raid warning and very few people availed themselves of the crude civil defense facilities which were available. Most of those that did, even at ground zero, in other words, directly under the explosion, which was at the optimum height of burst, survived. The trains were operating through Hiroshima 2 days after the explosion.

Let me paraphrase from an interchange I had in 1960 with Colonel Lincoln, head of the faculty at West Point, on this subject:

The Russians are careful students of Clausewitz. I do not believe they would ever ignore either the danger that a war once started might escalate to the full violence which the pure theory of war might indicate; on the other hand, they would never forget that war is a tool of policy and that every effort must be made to avoid letting it so escalate.¹

¹ In this connection the following quotation from *Communist of the Armed Forces* in November 1975 is pertinent: "The premise of Marxism-Leninism on war as a continuation of policy by military means remains true in an atmosphere of fundamental changes in military matters. The attempt of certain bourgeois ideologists to prove that nuclear missile weapons leave war outside the framework of policy and that nuclear war moves beyond the control of policy, ceases to be an instrument of policy and does not constitute its continuation is theoretically incorrect and politically reactionary."

On the other hand, I can well imagine that they might consider a controlled nuclear conflict in which significant military targets, but not urban-industrial targets, are the initial objects of attack, if they thought war unavoidable.

In conclusion, I would like to comment on this committee's print containing the Gaither Report of 1957.

I have now read that report for the first time in nearly 20 years. I am impressed—especially in light of the information then available to the Gaither committee—by the care and comprehensiveness of that committee's examination of the problems assigned to it for study. I note in contrast the cavalier imprecision reflected in the foreword prepared by this committee's staff.

It is not true that the Gaither Report ignored arms control, nor is it true that the report spoke of U.S. strategic inferiority as then a fact. To the contrary, the Gaither Report described the United States as then "capable of making a decisive attack on the U.S.S.R." In view of SAC's vulnerability "to a surprise attack in a period of lessened world tension," the Gaither Report also noted the U.S.S.R.'s capability to make "a very destructive attack on this country."

The report then observed, "As soon as SAC acquires an effective 'alert' status, the United States will be able to carry out a decisive attack even if surprised," and it anticipated that juncture "as the best time to negotiate from strength, since the U.S. military position vis-a-vis Russia might never be so strong again."

In attempting to disparage the Gaither committee's analysis, the staff foreword cites a subsequent estimate "* * * that at the time of the Gaither Report the Soviet Union probably had fewer than a dozen operational ICBMs." In fact, at the time of the Gaither Report—only a few weeks after the sputnik launching—the Soviet Union obviously had no operational ICBMs. The Gaither Report made no assumption to the contrary. Indeed, it postulated 1959 as the probable year the Soviet Union would first have operational ICBMs; in fact, they first became operational in 1960. What was crucial at the time was not only the question of how many ICBMs would be operational when, but even more importantly the question of the speed with which the U.S. Air Force could achieve adequate early warning facilities and an appropriate alert posture.

The Gaither Report focused attention on those questions.

Mr. Chairman: My interest in the questions which this Committee is discussing began in 1944 when I was asked to be a director of the U.S. Strategic Bombing Survey. The required qualification of the directors was that they have no prior knowledge of military strategy or of air power, and could thus be presumed to be unbiased in appraising the effects of the immense U.S. strategic air effort in World War II. I spent the next two years in Europe and then in the Pacific in intensive work, in association with what I believe to have been the best talent available to this country, to try to understand something about both subjects. In the Pacific portion of the Survey, as Vice Chairman I was in effective command of the operation, including the detailed study of the effects of the weapons used at Hiroshima and Nagasaki.

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I believe they will always pay close attention to the interrelationship of the offense and the defense and not ignore either side of the equation. I cannot believe they would so ignore the military core of war as to consider the type of controlled nuclear conflict discussed in some of the papers circulated by the Committee's staff where military targets are avoided and industrial targets are hit. On the other hand, I can well imagine that they might consider a controlled nuclear conflict in which significant military targets, but not urban-industrial targets, are the initial objects of attack, if they thought war unavoidable.

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The Gaither Report focused attention on those questions. Thereby the Report became a factor in stimulating an enormous effort on the part of the U.S. to move ahead with pertinent strategic programs. In those years the rate of expenditure on strategic programs was, allowing for inflation, about two and a half times the present rate. For all the great expense, the program was a bargain when considered against the calamitous potential consequences of permitting the strategic relationship to become unstable to the detriment of U.S. security and with increased risk to the maintenance of peace.

The Report placed first priority on the military measures necessary to maintain strategic stability and high quality deterrence. It placed a lower priority on those measures necessary to ensure survivability of the population in event deterrence were to fail. The two classes of measures are, however, interrelated.

STATEMENT OF HERMAN KAHN, DIRECTOR, HUDSON INSTITUTE

Senator PROXMIRE. Mr. Kahn.

Mr. KAHN. It is customary to start one's testimony with a statement of qualifications. Let me instead start with a disqualification.

I haven't really been spending very much time in the military field since 1965, but I started to go back last year, and I am now in the middle of reacquainting myself with the issues.

I might say though that comparing today's discussion to the sixties, there has been very little substantial improvement. In fact there have been some retrogressions. This both disturbs and surprises me.

Let me start by agreeing with Paul on two issues. The chairman just stated we can't have both increased and decreased deterrence. I believe that there are many measures which can go in both directions.

There are many measures which increase deterrence in one scenario or context, and decrease deterrence in another scenario or context. In particular, if one focuses on this abstract war, what Paul referred to as a pure military war, or a surprise attack out of the blue directed against civilians, then it is terribly easy to do many things which will decrease that deterrence.

But since I tend to feel we have, relatively speaking, too much deterrence of this situation I do not object to decreasing the deterrence of surprise attack out of the blue in favor of increasing deterrence in other situations. In fact there has been much too much attention to this simple situation. I know back in 1960, a number of polls were taken by Tom Schelling, by Weapon Systems Evaluation Group (WSEG) and others. In these polls analysts were asked "If a war occurred, what scenario do you think would have preceded the war?"

Almost universally, they agreed there would have been a very tense situation, say bombs bursting in Europe, and then either an attack by the Soviets because they got into serious trouble, an accidental war, or an attack by the U.S. All the analysts agreed that a surprise attack out of the blue, directed at cities, was far and away the least probable way that a war was likely to start.

And yet they all also agreed that 90 percent of their personal studies and effort went to that case and the other 10 percent or so went into a study of a surprise attack out of the blue which hit military bases. In other words, the analysts agreed, that even though they were able

to choose their own subjects of study, they were spending almost all of their time on scenarios which, in their judgment, were not probable or important. They simply were the easiest things to study and talk about.

[Additional remarks:]

Many analysts are still doing this, but do not seem to know that this emphasis distorts the realistic priorities.

Now, when we looked at civil defense in 1960—or today—it was really almost impossible to protect the population against a surprise attack directed against them. We found that it was also impossible to protect an economic base for massive war production against a surprise attack directed against the economic base.

Therefore, we did not ask ourselves, as a high priority, what does civil defense do for these objectives in these scenarios.

However we did not stop there. We went on to ask ourselves if there were any other roles for civil defense.

It seemed to us that there were a large number of roles. All of them tended to be second or third priority but still terribly important. When people said, "But that doesn't do any good in the first priority situation," we answered, "We don't care."

The first, perhaps the most important role, is to protect people when they are not targets. I am prepared to believe that doing this decreases deterrence, but I am willing to do it anyway.

I know when I examine the problem of attacking the Soviet Union that I want to preserve Moscow and Leningrad, my two biggest assets, and anything they do to make Moscow and Leningrad safe from becoming bonus targets improves my ability to plan war against the Soviets. Moscow and Leningrad are important to the Soviets and they are probably willing to do that. Deterrence is not the sole objective of policy.

In a book called *On Thermonuclear War* which I published in 1960, we mentioned what we called the Doomsday Machine was the highest possible deterrent, yet nobody wanted it. I might also mention that I made clear, in that book, that we didn't think there was any missile gap. In fact, just to go back over a little history of that, most people's recollection of the debate of that period tends to be wrong.

It is not true that the Democrats raised the issue of a missile gap against the Republican administration. That was a Republican statement. The Republicans predicted the Russians would have 300 missiles by 1960. But at the same time, the Republican administration said this wouldn't make any difference, because we had 2,000 bombers and they were more important than 300 missiles.

The great contribution of the Gaither Report, as Paul just said, was to make clear that if the Soviets had 300 missiles and we did not have any kind of warning system, then we might not have 2,000 bombers, because they could be destroyed by a surprise attack while still on the ground.

I also made clear, that while the Soviets probably would not have 300 operational missiles in 1960, if they did have them, we would be in trouble—that is, despite the predictions by the Republican administration we did not think they had such a force—but we were not sure.

What does one do when the other side may be able to do something in the near future and if one waits until he is certain before reacting, it is too late, while if one reacts early it may turn out to have been unnecessary?

Let me also make a remark about a release I saw from this committee which listed a series of predicted gaps which did not occur. In at least half the cases, people were rather clear that the gap might not occur, but they were not sure.

[Additional remarks:]

But they felt they had to worry about it ahead of time and even make some preparations because they could not afford to wait until all the facts were in.

Let me ask a question: What do you do if the other side exhibits a weapon system and has the production capability? You are not quite sure what he is going to do. Do you wait until he does it or do you worry about it?

In general this is a very complicated issue. In some cases, we almost have to make preparations ahead of time, even though they may be wasted. In other cases, we should wait until we are more sure; in still other cases, one just hopes for luck. But one should not, in my judgment, downgrade responsible officials who get concerned under such circumstances.

I might also draw attention to some studies done by Albert Wohlstetter. It is pointed out in these studies that in most cases, we have underestimated rather than overestimated U.S.S.R. future capability. I will ask that this report be sent to the committee.

If you look at the record, there has been more a problem of underestimation than overestimation. This is true in terms of the number of missiles the Soviets have had over time and in terms of Soviet capability on all kinds of other issues. We tend to remember the discussion when some hysterical people overstate the problem; then it turns out to be wrong. I would argue this is not at all the characteristic problem.

Let me turn to the major point I wanted to make today. I would argue that the scenario I worry about as the most probable scenario, is also the scenario which is least discussed. This is the case where there is opportunity for significant or even all-out mobilization before major thermonuclear attacks against the cities occur.

There are two recent and useful historical examples which illustrate this concept, the Korean War and World War II.

In June 1950, Congress was debating whether the budget should be \$15, \$16 or \$17 billion. The previous year it had been \$13 billion. A number of distinguished witnesses testified that \$18 billion would strain the economy, but \$16 billion was all right. North Korea marched on South Korea, and within 1 year, Congress authorized \$60 billion, an increase by a factor of 4.

This was totally unexpected and totally changed the strategic problem. One should note that it would not have been possible to fit into even an \$18 billion budget hardly any of the weapons systems we have procured since World War II. One could not have bought a Sage system, a B-47 system, a B-52 system, a Nike Hercules system, a Polaris system, and so on. None of these systems would have been feasible at the \$5 or \$6 billion budgets per service which were, roughly, current at that time.

As a result of this authorization, the Air Force budget was increased by about a factor of 5. The other two services had an increase of about 3. As a result, a whole new range of possibilities opened up for the services.

I can easily envisage a scenario for crisis in the future which involves military budgets of \$500 billion or more. That would change, if you will, the whole character of strategic planning. I do not expect any such situations to arise with high probability, but I do not consider it paranoia or unwise to prepare for such situations.

Probably an even better prototype for the situation we are thinking about is pre-World War II. After World War I, much of the world became sick of war, and war became "unthinkable" to most people, particularly in the victorious "Allied Powers." Strategists and publicists talked about poison gas and knock-out blows; they thought all the capital cities would be destroyed by poison gas in the first few days of a war. They did not understand the idea of limitations in warfare—of mutual deterrence even after hostilities have broken out.

When Hitler got elected in 1933, people became interested in larger defense budgets. Then he marched into the Rhineland and, of course, defense budgets increased slightly. Then there was the Anschluss and then Munich, and more substantial increases in military budgets. With the invasion of Czechoslovakia, everybody got deeply concerned. Then, finally, there was the invasion of Poland, the formal declaration of war and then 7 months of more or less "phony war." As a result there was opportunity on both sides for 7 months' of full-time war production, before the war really opened up.

We would argue that similar possibilities should be considered today. Nobody is interested in jumping into a nuclear war today. Nobody is going to want to execute the usual picture of nuclear war, in which each side presses every button and goes home. It is extraordinarily difficult to believe such a scenario.

It might happen. But I would be willing to bet, if this were a betting matter, 50 to 1 against it.

On the other hand, the situation might arise in which there was a declaration of war, followed by a phony war, or a serious confrontation in which there were credible threats of war. By the way, in such a confrontation, the following dialog tends to occur.

Both sides are saying to the other side, "There is absolutely nothing at risk which justifies this terrible danger to which we are subjecting each other and the rest of the world. It is clear that whatever we are arguing about is simply not worth the risk of a thermonuclear war. Therefore, one of us has to be reasonable—and it isn't going to be me."

That is, by the way, a terribly persuasive argument.

At this point, each side is trying to explain why the other side should be reasonable. You don't have to have a great defense to do that. All you have to be able to do is say, "I believe my defense establishment is better than yours, in important ways."

I can imagine the Russians telling us, "You are telling us the money we spent on our defense establishment does us no good, but we spent it because we thought it does do good. We believe that this defense establishment of ours works. You don't, but we believe it does."

If you can get that point across, you are going to put great pressure on the other side to back down.

Senator PROXMIRE. Very strong chance of what? I missed that.

Mr. KAHN. If we believe that they believe they have confidence in their establishment, we are going to back down, whether or not their

confidence is justified, because we would be destroyed almost as much as a result of their mistaken belief as by a correct one. If the other man can give you a credible picture, that he believes he has a serious edge over you, then even if he does not objectively have that edge, you may be in trouble.

That is even more true for allies. If they think the other side believes it has an edge, the allies are going to hedge. Finally it is even more true for neutrals that in a bargaining situation the strategic balance is very complex (which should be an obvious point) and the outsider is likely to be excessively influenced by appearances. Who strikes first and how many are dead in each city are almost irrelevant to many of these issues.

Finally, a last point. When we write scenarios for nuclear war, we find it difficult to write a credible scenario which doesn't involve months or weeks of warning. I would guess we are as good at writing scenarios as anybody in the world. We have certainly written as many.

I want to warn the committee, on the other hand, that when we looked at World War I, we didn't find that scenario plausible. The mere fact we can't write a plausible scenario for a war doesn't mean it can't occur, because one can find historical examples to the contrary.

Nevertheless, every scenario we write for nuclear war involves days, weeks or months of tension. Evacuation, last moment mobilizations are extraordinarily possible. By the way, evacuations occur not as a result of secret intelligence or in any attempt to try to outrun the missiles or the bombers. The *New York Times* and the *Washington Post* provide the warning perhaps days before the attack. People or governments then get frightened and decide to decrease their vulnerability to attack. The idea is, can you exploit such warning if it is printed in the papers?

[Complete statement follows:]

SUMMARY PAPER AND BRIEFING NOTES ON THE POTENTIAL OF THE DEFENSE MOBILIZATION BASE CONCEPT BY HERMAN KAHN, WILLIAM BROWN, AND WILLIAM SCHNEIDER, JR.

This submission is the responsibility of the authors and is not to be construed as representing any official opinions of the Hudson Institute or any other associated individuals or agencies.

PREFATORY NOTE

The following paper represents a summary of studies developed by the staff and consultants of the Hudson Institute more or less continuously over the last fifteen years although naturally it focuses more intensively upon recent work—in particular, a summary of a report on the concept of mobilization warfare by Herman Kahn and William Schneider, Jr. Most of Hudson's program of civil defense and mobilization base studies has been accomplished under the direction of William Brown, Herman Kahn and William Schneider, Jr. and at least half the Institute's personnel have participated in one or more of them. This particular submission was prepared as a joint paper by the three people named above.

MOBILIZATION WARFARE

1. The concept of mobilization warfare

The notion of mobilization in a nuclear age has the appearance of a contradiction in terms when arrayed against the conventional concept of mobilization. Mobilization has in general, been associated with the redirection of national resources, both human and material away from traditional civilian pursuits to support a defense effort. To some extent, it has been possible to conceive of a limited mobilization of military forces and associated national resources to support

limited political objectives although the more traditional perception has been associated with a general mobilization of the entire industrial might and armed forces of a nation.

The possibility of intercontinental strategic nuclear attack made possible through the development of ICBM's, missile firing submarines, and long-range bombers have made the initiation and conclusion of a nuclear conflict appear to be a matter of hours or days, and certainly not more than a few weeks in duration, making the traditional notion of mobilization appear to be as archaic and obsolete as the forces and weapons that had been in the past, mobilized.

This study is intended to advance the concept that mobilization is an important component of strategic nuclear conflict, and, we will argue, is likely to be the prototype of any U.S.-Soviet nuclear conflict should such a conflict occur. The concept can be most simply characterized from the perspective of the following simple generalized scenario: During a period of intense political crisis between the U.S. and the Soviet Union, both sides fear that a nuclear war may actually occur. However, neither side is willing to risk the consequences of a nuclear war with the existing levels of forces and defenses (military and civilian). As a consequence, each of the parties attempts to develop on a frantic basis, a very large-scale effective nuclear offense and defense capability which is associated with genuine fears about the possibility of a general war. The period of mobilization during and after an intense political crisis characterizes what we describe as "mobilization warfare." It is warfare in the sense of an intense and bitter competition of an accelerated arms race, but without the certainty that direct military action will occur. A plausible outcome of this scenario is that the side which mobilizes most effectively within a relatively brief period of time (say six months to two years) can achieve a dominant position capable of inhibiting the diplomatic efforts of the other.

The notion of "mobilization warfare" is not restricted only to strategic nuclear warfare. It is also applicable, for example, to a U.S.-Soviet struggle in Europe in which an intense political crisis raises the specter of an outbreak of conventional warfare between the two nations without the expectation that such a conflict would lead to a strategic or tactical nuclear exchange.

Perhaps the closest parallel to mobilization warfare during the nuclear era arose as a consequence of the Korean war. The ominous character of Soviet foreign policy following World War II culminated in the Soviet sponsored attack of North Korean forces against the Republic of Korea. The direction in Soviet foreign policy after World War II was not offset by any rebuilding of U.S. military power which had been rapidly dismantled after the end of World War II. However, when the Soviets authorized the attack on Korea, the change in U.S. attitudes regarding preparedness for a U.S.-Soviet strategic nuclear contingency was electric. One measure of the character of this concern, a measure characteristic of a serious mobilization, was the decision of the Congress to increase annual defense expenditures from \$16 to the \$60 billion authorized after the outbreak of the Korean war. This vast increase in authorized expenditure made possible a set of strategic programs that were simply not feasible within the prior U.S. defense budget. The new authorization made possible the B-52, the B-47, the Polaris Program, and Atlas Program and a host of related technological initiatives whose consequences are still influencing the shape of the U.S. strategic program today. It also developed a reasonable (for the time) civil defense program designed to move the more vulnerable portions of the home population rapidly to safer areas. As a consequence of this enormous build-up of strategic nuclear capability arising out of the concern over a possible U.S.-Soviet nuclear conflict in the early 1950s, the United States achieved for more than a decade a stark nuclear superiority over the Soviets. This superiority was so vast that in retrospect it appears clear that the Soviets were almost totally deterred from attempts to exert military power in support of their diplomatic objectives throughout the late 1950s and early 1960s.

In the early 1950s the Soviets also attempted to develop a larger strategic program, but were much less successful than the United States. This form of mobilization warfare, we argue, is more likely to become a "standard" mode of nuclear conflict with the Soviet Union than the commonly anticipated mode, namely a large-scale exchange of nuclear weapons.

Perhaps the most significant difference between traditional mobilization concepts and the concept of "mobilization warfare" that is the focus of this paper is that in a modern mobilization, the adequacy of a period of mobilization may be "tested" only in the sense that it can affect the perceptions of an opponent without

a shot being exchanged. Moreover, the period of mobilization in the modern era might be considerably more compressed and complicated than any which we have experienced in this century. In a very practical sense, the mobilization of Germany and the allied powers before the first World War was a traditional process which extended over a period of many years, although the most intense efforts took place after the initiation of the conflict. Similarly, the German and Japanese pre-war mobilization of their forces occurred over many years. In both cases, a large-scale and protracted conflict followed. Under modern conditions, a nuclear conflict between major powers is likely to be short compared to previous conflicts or to any period of mobilization.

The concept of mobilization warfare in a nuclear era implies relatively short reaction times with the ability to deploy major offensive as well as active and passive defensive systems which may be extremely costly and complex by any prior standards. Under such circumstances, it is entirely plausible that the U.S. strategic budget alone could constitute an expenditure of several hundreds of billions of dollars per year. Expenditures at such huge levels make possible a very wide range of military and non-military defense systems that could not be seriously considered with recent strategic budgets—less than \$10 billion.

For example, potentially high grade missile defense systems employing lasers, particle beam technology and other advanced concepts for boost phase, mid-course, and terminal interception could, in principle, be procured under conditions of "mobilization warfare." The crucial determinants for acquiring such a capability lies in the prior research and development program and in proper institutional orientation toward a mobilization potential. The requirements of a "mobilization base" to support the notion of mobilization warfare is sufficiently different from the objectives of existing research and development needed to support current and near-term defense requirements that expenditures for a mobilization base should be partitioned from other R&D expenditures. The primary function of a mobilization base is to facilitate the shortening of lead times to procure highly effective strategic forces, active defenses, and civilian protection, should a decision to procure such a capability be made in a context that requires such a build-up be completed in an extraordinarily short period of time (short, that is, by the standards of recent experience). Under some circumstances, it is sufficient simply to have "paper plans" say, for the conversion of designated industrial potential from civilian to military uses. In other cases, where the requirements are more critical, and less easily adaptable to short-term changes, some limited development or prototyping may be necessary. In still other cases, particularly where the function is highly complex and likely to involve large numbers of both civilian and military personnel, such as an ABM or civil defense system, it may be necessary to conduct a limited deployment or field testing, and to develop the professional cadres who could support a vast expansion if and when circumstances require such expansion. The decision as to what elements of a potential U.S. strategic posture should be most extensively or rapidly developed would depend upon the contribution such efforts would make to reducing the lead times necessary to deploy the capability during a period of intense mobilization. The United States already possesses a substantial infrastructure for the rapid short-term expansion of U.S. strategic forces. With relatively modest expenditures, it should be possible to dramatically improve the ability of the United States to mobilize rapidly during an appropriate crisis to increase strategic nuclear forces, its active and passive defenses, and its general purpose forces without the protracted lead times that we have tended to become accustomed to over the past two decades.

2. A baseline mobilization warfare scenario

The implausibility of a U.S.-Soviet strategic nuclear exchange in recent politico-military circumstances has tended to obscure the fact that there are numerous possibilities for a major clash of interests between the superpowers; and consequently, for escalation.

The scenario proposed here arises out of the Achilles' heel of the Soviet Union, the behavior of their East European satellites, in this case, East Germany. Internal dissension develops beyond the control of the local and Soviet political and military leadership in East Germany to the point where large-scale border crossing into West Germany by deserting elements of East German armed forces involve the NATO nations. Unlike the standard escalation scenario where such events lead ultimately to a U.S.-Soviet nuclear exchange, the potential escalation, itself, becomes a force for restraint.

TYPICAL STRATEGIC MOBILIZATION SCENARIOS

Of the four scenarios given below, the first two are history, the third used to be the great fear of NATO, and the fourth is probably the great fear of the Warsaw Pact.

1. The "phony war," 1940 (5 months) :
 - (a) Pre-crisis arms competition (UK, France, Germany and the U.S.S.R.).
 - (b) A major series of political-military crisis—
 - Militarization of the Rhineland (1936) ;
 - Anschluss (Austria) (1938) ;
 - Sudeten crisis (1938-39) ;
 - War in Poland (1939).
 - (c) De-escalation and negotiation (antagonists began a rapid buildup fearing a resumption of full scale conflict).
2. Korea (1950-53) :
 - (a) Pre-war politico-military crises—
 - Soviet invasion of Iran (1946) ;
 - Soviet takeover of East European nations (1945-48) ;
 - Berlin blockade (1948) ;
 - Soviet intervention in Turkey and Greece ;
 - Soviet military buildup, post WW-II.
 - (b) Major turnabout in U.S. policy—
 - Factor of four increase in defense expenditures in 18 months ;
 - Massive emphasis on strategic preparedness, especially active defense.
3. Successful Soviet attack on W. Berlin and subsequent de-escalation.
4. Uprising in East Germany gets out of control and escalates.

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CHARACTERISTICS OF A SPECIAL MOBILIZATION SCENARIO: A FORMAL DECLARATION OF WAR BY THE U.S.

1. The declaration would have solemn and especially great significance for our enemies, allies, and neutrals.
2. The information transferred would have :
 - (a) Unambiguous factual content of great importance ;
 - (b) Undeniable implications and symbolism ;
 - (c) Highly uncertain interpretations or implications.
3. Its existence would preempt "ordinary" crisis negotiation and deny the stability of any recent *fait accompli*.
4. In some extreme crises it could be temporizing—a declaration is not a spasm response—and lead to deescalation of actual fighting.
5. But it implies a rapid response to any increased use of force.
6. It tends to force a decision by allies to cooperate actively.
7. It would justify many peripheral actions (blockades, interdiction, property confiscation, internment of hostile aliens, etc.).
8. It would tend to unify the national response—and increase defense spending enormously through mobilization.
9. It would convey the unambiguous message that a *formal* peace treaty will be required to settle all the important issues.

ROLE OF RESEARCH FOR MOBILIZING ACTIVE DEFENSES

1. Missile defense probably would be the most important and expensive effort.
 2. Lead-time reduction becomes extremely important.
 3. A program is required to facilitate rapid massive procurement of mutually reinforcing systems—
 - Boost phase interception ;
 - Mid course interception ;
 - Terminal interception.
 4. A capability may soon be needed to support a war in space.
 5. A capability is required for integration into other—high priority strategic mobilization programs—
 - Air defense ;
 - Civil defense.
- Major research objective: design systems which are highly effective, mutually supporting and which can be rapidly deployed at high levels of expenditure.

APPENDIX I

PAUL HENRY NITZE

In the spring of 1969, Paul Henry Nitze was appointed the representative of the Secretary of Defense to the United States Delegation to the Strategic Arms Limitation Talks with the Soviet Union; a position he held until June 1974, at which time he resigned.

Mr. Nitze resigned from his duties as Deputy Secretary of Defense on January 20, 1969, a position he had held since July 1, 1967, succeeding Cyrus R. Vance.

Mr. Nitze was serving as 57th Secretary of the Navy when he was nominated by former President Lyndon B. Johnson on June 10, 1967, to become Deputy Secretary of Defense. He was confirmed by the United States Senate on June 29, 1967.

The late President John F. Kennedy nominated Mr. Nitze to be Secretary of the Navy on October 14, 1963. At that time he was serving as Assistant Secretary of Defense (International Security Affairs), having assumed that position on January 29, 1961. He began his duties as Secretary of the Navy on November 29, 1963.

Graduated "cum laude" in 1928 from Harvard University, Mr. Nitze subsequently joined the New York investment banking firm of Dillon Read and Company. In 1941, he left his position as Vice President of that firm to become financial director of the Office of the Coordinator of Inter-American Affairs.

From 1942-1943, he was Chief of the Metals and Minerals Branch of the Board of Economic Warfare, until named as Director of Foreign Procurement and Development for the Foreign Economic Administration.

During the period 1944-1946, Mr. Nitze was Vice Chairman of the United States Strategic Bombing Survey. He was awarded the Medal of Merit by President Truman for service to the nation in this capacity.

For the next seven years, he served with the Department of State, beginning in the position of Deputy Director of the Office of International Trade Policy. In 1948, he was named Deputy to the Assistant Secretary of State for Economic Affairs. In August, 1949, he became Deputy Director of the State Department's Policy Planning Staff, and Director the following year.

Mr. Nitze left the federal government in 1953 to become President of the Foreign Service Educational Foundation in Washington, D.C., a position he held until January 1961.

Mr. Nitze is Chairman of the Advisory Council of The Johns Hopkins School of Advanced International Studies in Washington, D.C., and also serves on the Board of Trustees of the University. He holds memberships on the Board of Directors of Schrodgers, Inc., in New York, and Schrodgers, Ltd., in London, The American Security and Trust Company of Washington, D.C., Northwestern Mutual Life Mortgage and Realty Investors of Milwaukee, Wisconsin, and is Chairman of the Board of the Aspen Skiing Corporation.

HERMAN KAHN

Herman Kahn was born in Bayonne, New Jersey, in 1922. He received a B.A. from UCLA in 1945 and an M.S. in physics from the California Institute of Technology in 1948. He was associated with the Rand Corporation before becoming in 1961 the principal founder and director of the Hudson Institute, a research organization studying public policy issues, with headquarters in Croton-on-Hudson, N.Y. His international reputation as a strategic warfare analyst or, as the *New Republic* put it, one of "the prophets of strategic reality," is based on his work at the Institute and on his books: *On Thermonuclear War* (1960), *Thinking about the Unthinkable* (1962), *On Escalation* (1965 and, revised *Pelican*

STATEMENT OF E. P. WIGNER¹ FOR THE JOINT COMMITTEE ON DEFENSE PRODUCTION

¹Dr. Wigner is a Nobel Laureate and an emeritus professor of physics at Princeton University and has long been associated with civil defense issues. He edited a 1968 study *Who Speaks for Civil Defense?*

THE EFFECTIVENESS OF CIVIL DEFENSE

This writer became convinced of the possible effectiveness of civil defense measures when he served as a member of the General Advisory Committee to the U.S. Atomic Energy Commission.

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Are the U.S.S.R. and China the only countries with elaborate and well developed civil defense systems? No—most of the peace-loving countries also have such systems, based on blast shelters, and their yearly expenditures per person on such defense is about 15 times greater than ours. This has been, so far, about 40¢ per person a year. Incidentally, the Swiss civil defense repeats our President Kennedy's message: (Civil defense) "is insurance we trust, will never be needed"—its greatest accomplishment is, according to the Swiss, that it will *not* have to be used, that it will divert the aggressive instincts of possible opponents.

It is easy to conclude that an effective civil defense is not only desirable, it is also possible.

IS CIVIL DEFENSE NECESSARY?

What is the principal danger that threatens us in the present absence of an effective civil defense? It is the possibility of the U.S.S.R. evacuating its cities, dispersing their population, and then making demands on us, under the threat of a nuclear attack, approximating those made by Hitler or Czechoslovakia which led to the Munich pact. This left Czechoslovakia essentially defenseless.

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THE ARGUMENTS AGAINST CIVIL DEFENSE

The argument which we heard after the U.S.S.R. civil defense efforts became generally apparent was that our installation of protection for our people would only induce the U.S.S.R. to augment its aggressive capability. We now know that such augmentation took place even though we did not organize a vigorous civil defense effort. One of the two arguments we now hear, the civil defense is too expensive, seems almost ridiculous. If Switzerland, Sweden, etc., *even China*, can afford the more costly, the blast shelter method, we with the highest per capita national wealth, can also surely afford the defense of our people. The other argument, in the words of one of the most learned opponents of civil defense, S. Drell, is that it would lead to an "escalation of the apprehension from the mood of today, vis-a-vis the dangers of a nuclear exchange between the U.S. and the Soviet Union." Should the apprehension of the danger not be greater now, where we have no effective defense, than it would be when we have such defense? Or is it proposed that we should lull the common people into ignorance of the true situation? It is remarkable also that the U.S.S.R. is not criticised for fostering the "apprehension" of its own people. One must conclude that the varying arguments against civil defense have little validity.

A FEW PROPOSALS RELATED TO OUR DEFENSE

The first change I would advocate is to stop maintaining that a nuclear war would be the end of mankind. Such a statement may give the impression to an opponent that he can achieve anything by threatening with a nuclear war. After all, he would argue, the opponent (that is us) will make any sacrifice to avoid the "end of mankind". Hence, if he is threatened with extinction he will give in, particularly if the threat comes from a party which does not believe that the war precipitated by him will lead to the "end of mankind". Instead of such a blatantly incorrect statement, it would be better to subscribe to Chuykov's doctrine that "knowledge and the skillful use of modern protective measures" will make it possible to provide effective protection. At least, we could adhere to Kissinger's earlier (1957) statement: "While it (civil defense) cannot avert the traumatic effect of vast physical destruction, its efficient operation may make the difference between the survival of a society and its collapse."

The second measure which I consider to be urgent is to establish better contact with the people at large. This makes it desirable for DCPA to expand its staff by the employment of people who can establish a contact with the population at large, who can speak and write the truth convincingly. One of the functions of these advisors would be to help the high schools to give instruction on the nature of nuclear explosions and the defense against the effects of these. This is a subject which is foreign to most present high school teachers, and the advisor could and should help them to acquire the necessary knowledge. After all, the Federal Government now intends to support the local schools and can well suggest that these contribute to the protection of the country. The high school instruction on civil defense—obligatory in the U.S.S.R.—would be very useful since, after all, we learn best when we are young and we learn most non-elementary facts from our teachers. But even more generally, the establishment of a close contact between those who protect our freedom, and those whose freedom is protected, would be very desirable; and acquainting people at large with the methods and effectiveness of civil defense would provide an avenue toward this goal. It may not be easy to find people who know about the methods and effectiveness of civil defense and who are also able and interested in communicating this and much other knowledge to the people at large, but every effort should be made to find such people and support them.

The last suggestion I wish to make is that the DCPA budget should certainly not be cut. It should steadily be increased until, in a few years, it reaches the per capita level of other peace-loving and non-expansionist countries, such as Switzerland, Holland, Sweden, etc. For reasons given in the rest of my statement, this would be of decisive importance for maintaining a valid, widely endorsed, and vigorous defense effort for our country—and it would support all freedom-directed nations. Their independence does depend to a certain degree on our strength and our ability to stand up for them. The examples of Hungary, Czechoslovakia, Poland—to mention only a few—show that such independence does not come freely.

Let me end on a bit more hopeful tone which is, however, as sincere as was the rest of my statement. This is the hope that an effective civil defense may not only protect our country and our freedoms, but it may

also lead to a more true peace than the present one, which is based on the fear of destruction. I hope such a peace in which no rulers are tempted to increase their domains will come into being!

STATEMENT OF GERARD C. SMITH¹

I propose to discuss this morning some of the arms control implications of Vladivostok as well as certain related aspects of the current Defense budget submission.

I. THE VLADIVOSTOK ACCORD

At the start let me say that I put forward these ideas tentatively, not categorically. I question that anyone can speak with certainty about the slippery issues surrounding strategic arms and their control. I admit to a bias in favor of a very strong defense but I believe that arms control can also advance the security of the United States and the world whether or not there is some relaxation of tensions between the U.S. and the U.S.S.R.

The Vladivostok accord should not be judged in and of itself—but in connection with the limit on defensive systems (ABMs) agreed upon in 1972 and other American-Soviet agreements relating to arms control. It may help in judging the significance of Vladivostok to see that accord as part of a process that has been going on for more than five years. The general strategic dialog of the 1960s led to the specific SALT exchanges of 1969–72 at Helsinki, Vienna, Washington, and Moscow. Gradually the two sides developed somewhat better understanding of each other's strategic preoccupations. Concerns about accidental or miscalculated nuclear hostilities led to the first two SALT agreements in 1971—on measures to reduce the risk of outbreak of nuclear war and on measures to improve the Washington-Moscow direct communication link or "Hot Line." In 1972 there was the major breakthrough, the treaty limiting ABMs to two sites apiece, accompanied by the interim agreement to freeze offensive launches at the approximate levels of 1972. These were followed in 1973 by the Nixon-Brezhnev agreed principles for offensive arms limitation and in 1974 the ABM Treaty levels were reduced to one site apiece. At year's end the Vladivostok accord foreshadowed limitations on offensive systems which although of relatively short duration may be considered as a counterpart of the ABM Treaty. In judging this latest agreement one should consider the cumulative effect of the entire SALT process which hopefully can be considered as a preparatory stage for the natural next steps—reduction in offensive force levels which the sides are now committed to negotiate and some limitation on improvements in weapons characteristics. A total ban on ABM systems should also be reconsidered.

I would not favor interrupting the current Geneva negotiations by introducing a proposal for reductions. I do not believe that reductions are negotiable now. The Soviet position since 1968 has called for first a limitation and subsequently for reductions. When and if

¹ Mr. Smith is the former Director of the U.S. Arms Control and Disarmament Agency and chief U.S. representative in SALT I. He is now in private practice with the law firm of Wilmer, Cutler, and Pickering. His statement submitted to the Joint Committee was originally delivered to the Senate Foreign Relations Committee in April 1975.

(Gross exaggerations, assuming Nevada desert type terrain with no thermal shadows by city skylines, no duck and cover, no clothing and fraudulent blast effects data which ignores Hiroshima's evidence)

APPENDIX III

U.S. CIVILIAN NUCLEAR FATALITY ESTIMATES¹ FOR VARIOUS COUNTERFORCE ATTACK SCENARIOS

Type of attack	Assumptions	Estimated fatalities
Comprehensive attack:		
Case 1, 60 percent destruction of military targets.	1 optimum height of burst and 1 surface burst warhead per each of 1,054 ICBM silos; pattern attack of SAC bases; unspecified attack on 2 SSBN support bases; good shelter posture.	3, 200, 000
Case 2, 60 percent destruction of military targets.	2 optimum height of burst warheads per each of 1,054 ICBM silos; no pattern attack of SAC bases; unspecified attack on 2 SSBN support bases; poor shelter posture.	6, 700, 000
Case 3, 57-60 percent destruction of military targets.	2 surface burst warheads per each of 1,054 ICBM silos; pattern attack of SAC bases; unspecified attack on 2 SSBN support bases; very poor shelter posture.	16, 300, 000
ICBM only attack:		
Case 1.....	2 550 kt optimum height of burst warheads per each of 1,054 ICBM silos.	² 4, 000, 000
Case 2, 42 percent silo destruction.	1 550 kt surface burst and 1 550 kt optimum height of burst warhead per each of 1,054 ICBM silos.	5, 600, 000
Case 3, 80 percent silo destruction.	1 3 Mt surface burst and 1 3 Mt optimum height of burst warhead per each of 1,054 ICBM silos.	18, 300, 000
Case 4.....	2 3 Mt surface burst warheads per each of 1,054 ICBM silos.....	³ 20, 000, 000
Airlift attack:⁴		
Case 1.....	1 200 kt cruise missile warhead per each of 5 U.S. heavy airlift bases (Dover AFB, Del.; McGuire AFB, N.J.; Travis AFB, Calif.; Charleston AFB, S.C.; and McChord AFB, Wash.)	70, 000
Case 2.....	1 1.2 Mt SLBM per each of 5 U.S. heavy airlift bases.....	210, 000
Case 3.....	1 1.2 Mt SLBM per each of 5 U.S. heavy airlift bases uses offset targeting.	135, 000

¹ Department of Defense estimates as reported to the Senate Foreign Relations Committee, July 11, 1975, and published in "Analyses of Effects of Limited Nuclear War," pp. 12-24. Note that figures are fatalities only and not casualties and that attacks are restricted to military facilities (counterforce) rather than populated areas (countervalue). Shelter posture is a function of degree of hardening and the willingness of the population to use shelters.

² Under.

³ Circa.

⁴ Assumes allied victories in a European war supported by U.S. military airlift provide incentives for destruction of major American airlift centers.

Survival of the Relocated Population of the U.S. After a Nuclear Attack

FINAL REPORT • JUNE 1976 ORNL-5041

by

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OAK RIDGE NATIONAL LABORATORY

AD A 026362

SURVIVAL OF THE RELOCATED POPULATION
OF THE U.S. AFTER A NUCLEAR ATTACK

C. M. Haaland, C. V. Chester, and E. P. Wigner

ABSTRACT

The feasibility of continued survival after a hypothetical nuclear attack is evaluated for people relocated from high-risk areas during the crisis period before the attack. The attack consists of 6559 MT, of which 5951 MT are ground bursts, on military, industrial, and urban targets. Relocated people are assumed to be adequately protected from fallout radiation by shelters of various kinds. The major problems in the postattack situation will be the control of exposure to fallout radiation, and prevention of severe food shortages to several tens of millions of people. A reserve of several million additional dosimeters is recommended to provide control of radiation exposure. Written instructions should be provided with each on their use and the evaluation of the hazard. Adequate food reserve exists in the U.S. in the form of grain stocks, but a vigorous shipping program would have to be initiated within two or three weeks after the attack to avoid large scale starvation in some areas. If the attack occurred in June when crops on the average are the most vulnerable to fallout radiation, the crop yield could be reduced by about one-third to one-half, and the effects on crops of possible increased ultraviolet radiation resulting from ozone layer depletion by nuclear detonations may further increase the loss. About 80% of the U.S. crude refining capacity and nearly all oil pipelines would be either destroyed or inoperative during the first several weeks after an attack. However, a few billion gallons of diesel fuel and gasoline would survive in tank storage throughout the country, more than enough for trains and trucks to accomplish the grain shipments required for survival. Results of a computer program to minimize the ton-miles of shipments of grain between Business Economic Areas (BEAs) indicate that less than 2% of the 1970 rail shipping capacity, or less than 6% of the 1970 truck shipping capacity would be adequate to carry out the necessary grain shipments. The continuity of a strong federal government throughout the attack and postattack period is essential to coordinate the wide-scale interstate survival activities.

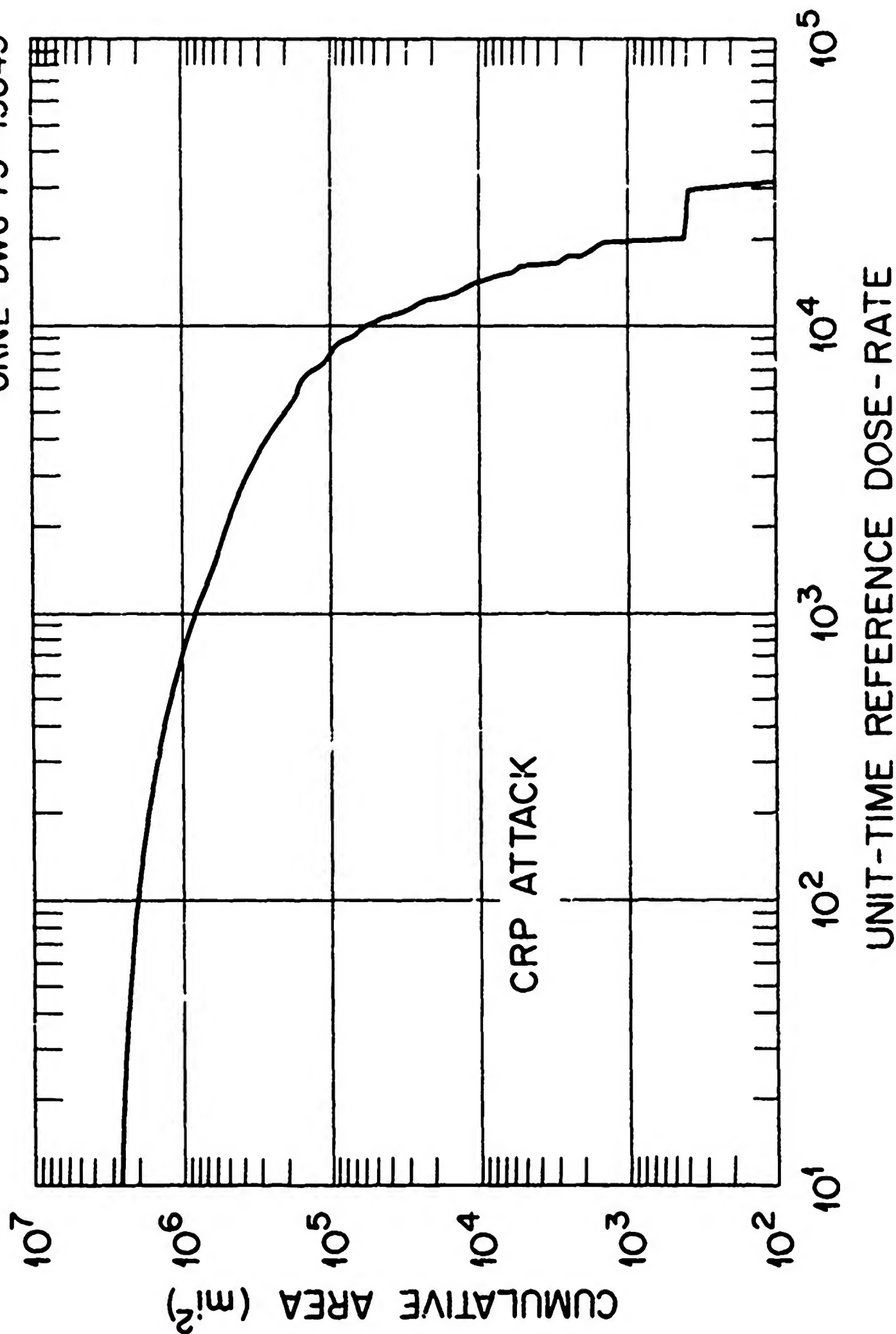


Fig. 4.2 Area of U.S. as a Function of Unit-Time Reference Dose-Rate.

Environmental Radiation Protection Factors
Provided by Civilian Vehicles

Vehicle	Position	Protection Factor Range
Commercial bus (common type)	Throughout bus	1.5-2.0
Commercial bus (scenic cruiser type)	Throughout bus	1.5-2.0
School bus	Throughout bus	1.5-1.8
Passenger car	Passenger side (chest)	1.5-1.7
	Driver side	1.5-1.7
Pickup	Driver side	1.9-2.1
Crew cab	Driver side	1.8-2.0
	Back seat	1.8-2.0
Carryall	Driver side	1.7-1.9
	Rear side	1.7-1.9
2-1/2-ton truck	Driver side	1.8-2.0
	Center of bed	1.4-1.6
5-ton truck	Driver side	2.0-2.2
	Sleeper	1.9-2.1
Heavy Truck	Driver side	1.4-1.6
	Center of trailer	2.7-3.1
Fire truck	Driver side	2.7-3.1
	Standing area in back	1.6-1.8
Switch engine	Engineer's seat	3.0-3.5
Railway guard car	Sleeping quarters	2.2-2.6
	Kitchen area	2.4-2.8
	Center area	2.0-2.4
Heavy locomotive	Engineer's seat	3.0-3.5

SOURCE: Z. G. Burson, "Environmental and Fallout Gamma Radiation Protection Factors Provided by Civilian Vehicles," Health Physics, 26, 41-44, 1974.

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July 25, 1980

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Presidential Directive/NSC-59

TO: The Vice President
The Secretary of Defense

ALSO: The Assistant to the President for
National Security Affairs
The Chairman, Joint Chiefs of Staff

SUBJECT: Nuclear Weapons Employment Policy (C)

In PD-18, I directed a follow-on study of our targeting policy for nuclear forces. I have reviewed the results and considered their implications for maintaining deterrence in the present decade, particularly in light of the growing Soviet strategic weapons arsenal and its capabilities. (S)

The most fundamental objective of our strategic policy remains nuclear deterrence. I reaffirm the directive of PD-18 to that effect. The purpose of this directive is to outline policies and actions in the nuclear force employment field to secure that continuing objective. (S)

Our strategic nuclear forces must be able to deter nuclear attacks not only on our own country but also on our forces overseas, as well as on our friends and allies, and to contribute to deterrence of non-nuclear attacks. To continue to deter in an era of strategic nuclear equivalence, it is necessary to have nuclear (as well as conventional) forces such that in considering aggression against our interests any adversary would recognize that no plausible outcome would represent a victory on any plausible definition of victory. To this end and so as to preserve the possibility of bargaining effectively to terminate the war on acceptable terms that are as favorable as practical, if deterrence fails initially, we must be capable of fighting successfully so that the adversary would not achieve his war aims and would suffer costs that are unacceptable, or in any event greater than his gains, from having initiated an attack. (C)

~~TOP SECRET/SENSITIVE~~

Review on May 15, 2000

Reason for Extension: NSC 1.13(e)

Downgraded Per per 6/12/09 NSC Mr.Case 2008-085

DECLASSIFIED

Authority 6/12/09 LTR, 08-085
NARA Q Date 7/24/12

The employment of nuclear forces must be effectively related to operations of our general purpose forces. Our doctrines for the use of forces in nuclear conflict must insure that we can pursue specific policy objectives selected by the National Command Authorities at that time, from general guidelines established in advance. (S)

These requirements form the broad outline of our evolving counter-vailing strategy. To meet these requirements, improvements should be made to our forces, their supporting C3 and intelligence, and their employment plans and planning apparatus, to achieve a high degree of flexibility, enduring survivability, and adequate performance in the face of enemy actions. The following principles and goals should guide your efforts in making these improvements. (S)

Pre-planned options. The Single Integrated Operational Plan will provide pre-planned targeting for strikes against the Soviet Union, its allies and its forces. It should provide for retaliatory strikes that will be effective, even if the Soviets attack first, without warning, and in a manner designed to reduce our capability as much as possible. It will be developed with flexible sub-options that will permit, to the extent that survival of C3 allows, sequential selection of attacks from among a full range of military targets, industrial targets providing immediate military support, and political control targets, while retaining a survivable and enduring capability that is sufficient to attack a broader set of urban and industrial targets. In addition, to the maximum extent possible, pre-planned options will be provided for selection in response to specific, lesser contingencies (including attacks on Cuba, SRV and North Korea as appropriate).

While it will remain our policy not to rely on launching nuclear weapons on warning that an attack has begun, appropriate pre-planning, especially for ICBMs that are vulnerable to a preemptive attack, will be undertaken to provide the President the option of so launching. (TS)

Flexibility. In addition to pre-planned options we need an ability to design nuclear employment plans on short notice in response to the latest and changing circumstances. This capability must be comprehensive enough to allow rapid construction of plans that integrate strategic force employment with theater nuclear force employment and general purpose force employment for achieving theater campaign objectives and other national objectives when pre-planned response options are not judged suitable in the circumstances. (S)

To assure that we can design such plans, our goal should be to have the following capabilities on a continuing basis in peacetime, during crises, and during protracted conflict:

- Staff capabilities, within all unified and specified commands which have nuclear forces, to develop operational plans on short notice and based on the latest intelligence.

- Staff capabilities at the seat of Government to support the NCA for coordinating and integrating the nuclear force employment for all commands.
- Intelligence and target development capabilities which permit damage assessment and acquisition of a broad range of targets, fixed and mobile, on a timely basis for military operations. (S)

Reserve Forces. Pre-planned options should be capable of execution while leaving a substantial force in secure reserve and capable of being withheld for possible subsequent use. The forces designated for the reserve should be the most survivable and enduring strategic systems consistent with the need for a flexible and varied reserve force capable of being effectively employed against a wide target spectrum and withheld if necessary for a prolonged period. The secure reserve force will be increased over the next two years to support a more flexible execution of our countervailing strategy. This will be done according to the Secretary of Defense's guidance. (TS)

Targeting categories. Overall targeting planning appropriate to implement a countervailing strategy will result in a capability to choose to put the major weight of the initial response on military and control targets. Military targets must be selected for the purpose of destroying enemy forces or their ability to carry out military operations. Strategic and theater nuclear forces should to the extent feasible be used in combination with, and in support of, general purpose forces to achieve that objective. (S)

More specifically, the following categories of military targets, with appropriate sub-options for different theaters, should be covered in planning:

- strategic and theater nuclear forces, including nuclear weapons storage;
- military command, control, communications, and intelligence capabilities;
- all other military forces, stationary and mobile;
- industrial facilities which provide immediate support to military operations during wartime. (TS)

In addition, pre-planned options, capable of relatively prolonged withhold or of prompt execution, should be provided for attacks on the political control system and on general industrial capacity. (TS)

There must be extensive and effective coverage in the pre-planned options of all categories. Methods of attack on particular targets should be chosen to limit collateral damage to urban areas, general

industry and population targets outside these categories, consistent with effectively covering the objective target, and, where appropriate, overall plans should include the option of withholds to limit such collateral damage. (TS)

Command, Control and Communications, and Intelligence. Flexibility in contingency planning and in operations will be highly dependent on our C³I capabilities, including their ability to acquire targets, assess damage, and survive attack. Strategic stability in an era of essential equivalence depends as much on survivability, endurance and reconstitutability of C³I capabilities as it does on the size and character of strategic arsenals. (C)

PD/NSC-53 directs that our C³I programs and our guidance to telecommunications common carriers support the development and maintenance of such capabilities. In addition, PD/NSC-41 directs that we seek greater continuity of government should deterrence fail. Implementation of PD/NSC-53 and PD/NSC-41 must be pursued in parallel with that of this employment directive. (C)

The relationship of acquisition policy to employment policy. Our acquisition programs must be evaluated in terms of their support for the employment policy ordered by this directive. The required flexibility, survivability, endurance, and target destruction capability must be taken into account in developing programs for acquiring nuclear weapons systems, and their supporting C³I systems, needed to support our countervailing strategy. (S)

Implementation. As new targeting capabilities are developed, and as our operational staffing support change to meet the foregoing directives, they must be reviewed and tested to validate their feasibility and soundness. For that purpose:

- At least two exercises involving the National Command Authorities should be conducted each year to evaluate our capabilities and our employment doctrines.
- Continued study and analysis of means to improve and refine our countervailing strategy of general conflict should be conducted by the Department of Defense.
- The results of these exercises, studies and analysis will provide the bases for modification and any further development of employment and acquisition policy.
- A report will be rendered to the President at least annually on our employment plans, including, but not limited to, on the size and capability of the reserve forces, the degree of flexibility available,

limiting factors in achieving flexibility, and the status of programs to provide improvements.

- Any change or new pre-planned options will be submitted to the President for his review and approval, in accordance with current procedures.
(TS)

NSDM-242 is superseded by this directive. (U)

Jimmy Carter

NUCLEAR WAR STRATEGY

(Concerning President Carter's
25 July 1980 Presidential
Directive PD-59, "Nuclear
Weapons Employment Policy")

HEARING

BEFORE THE

COMMITTEE ON FOREIGN RELATIONS

UNITED STATES SENATE

NINETY-SIXTH CONGRESS

SECOND SESSION

ON

PRESIDENTIAL DIRECTIVE 59

SEPTEMBER 16, 1980

(TOP SECRET HEARING HELD ON SEPTEMBER 16, 1980; SANITIZED
AND PRINTED ON FEBRUARY 18, 1981)

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APPENDIX

ADMINISTRATION'S RESPONSES TO QUESTIONS SUBMITTED BEFORE THE HEARING

Question 1. What are the basic strategic targeting priorities in PD-59? How do these differ from previous targeting guidance, particularly that contained in NSDM 242?

Answer. PD-59 specifies the development of plans to attack a comprehensive Soviet/Warsaw Pact target system, with the flexibility to employ these plans, should deterrence fail, in a deliberate manner consistent with the needs of the situation and in a way which will deny an aggressor any gain, or would impose costs which clearly exceed his expected gains. This could entail initial retaliation on military and control targets while retaining the capability either to withhold for a relatively prolonged period, or to execute, broad retaliatory attacks on the political control system and on general industrial capacity. These individual target systems, which we feel the Soviet leaders value most, include leadership and control, military forces both nuclear and conventional and the industrial/economic base. Highlights of targeting aspects include an increased number of situation-oriented options, and more flexibility for selectively attacking all categories of targets.

PD-59 requires the option to attack a full range of industrial/economic targets be retained. PD-59 also places more emphasis on how to improve the effectiveness of targeting retaliation against Warsaw Pact leadership and control, nuclear forces, and conventional forces in a wartime situation. In contrast to some pronouncements by the press, the United States has never had a doctrine based simply and solely on reflexive, massive attacks on Soviet cities. Instead, we have always planned both more selectively (options limiting industrial/economic damage) and more comprehensively (a range of military targets in addition to the industrial/economic base). Previous Administrations, going back well into the 1960s, recognized the inadequacy of a strategic doctrine that would give us too narrow a range of options. The fundamental premises of our countervailing strategy are a natural evolution of the conceptual foundations built over the course of a generation. PD-59 is not a new strategic doctrine; it is not a radical departure from past U.S. strategic policy. Our countervailing strategy, as formally stated in PD-59, is in fact, a refinement, a codification of previous statements of our strategic policy. PD-59 takes the same essential strategic doctrine, and restates it more clearly, more cogently, in the light of current conditions and current capabilities.

Question 2. What are the fundamental political and military objectives for strategic targeting in PD-59? Is it envisaged that the United States could, under certain circumstances, conduct limited nuclear war for foreign policy, political or military objectives? Does the PD-59 envision the possibility of U.S. nuclear retaliation for any provocation short of a nuclear attack on the United States or its allies?

Answer. Deterrence remains, as it has been historically, our fundamental strategic objective. The overriding objective of our strategic forces is to deter nuclear war. But deterrence must restrain an adversary from carrying out any of a far wider range of threats than just that of massive attacks of U.S. cities. We seek to deter any adversary from any course of action that could lead to general nuclear war. Our strategic forces also must deter nuclear attacks on smaller sets of targets in the United States or on U.S. military forces overseas, and deter the nuclear coercion of, or attack on, our friends and allies. Our strategic forces, in conjunction with theater conventional and nuclear forces, must also contribute to deterrence of conventional aggression as well. I say "contribute" because we recognize that neither nuclear forces nor the cleverest theory for their employment can eliminate the need for us—and our allies—to provide a capable conventional deterrent.

In our analysis and planning, we are necessarily giving greater attention to how a nuclear war would actually be fought by both sides if deterrence fails. There is no contradiction between this focus on how a war would be fought and what its results would be, and our purpose of insuring continued peace through deterrence. Nor is there a contradiction between this focus and a judgment that escalation of a "limited" to an "all-out" nuclear war is likely. Indeed, this focus helps us achieve deterrence and peace, by insuring that our ability to retaliate is fully credible. We must have forces, contingency plans, and command and control capabilities that will convince the Soviet leadership that no war and no course of aggression by them that led to use of nuclear weapons—on any scale of attack and at any stage of conflict—could lead to victory, however they may define victory.

Operationally, our countervailing strategy requires that our plans and capabilities be structured to put more stress on being able to employ strategic nuclear forces selectively, as well as by all-out retaliation in response to massive attacks on the United States. It is our policy—and we have increasingly the means and the detailed plans to carry out this policy—to ensure that the Soviet leadership knows that if they chose some intermediate level of aggression, we could, by selective, large (but still less than maximum) nuclear attacks, exact an unacceptably high price in the things the Soviet leaders appear to value most—their military forces both nuclear and conventional, their political and military control apparatus, and the industrial capability to sustain a war. In our planning we have not ignored the problem of ending the war, nor would we ignore it in the event of a war. And, of course, we have, and we will keep, a survivable and enduring capability to attack the full range of targets, including the Soviet economic base, if that is the appropriate response to a Soviet strike.

The United States already retains the option of using weapons in a limited way in response to a conventional attack on us or our allies if necessary. However, PD-59 does *not* propose a first strike strategy. We are talking about what we could and (depending on the nature of a Soviet attack) would do in response to a Soviet attack. Nothing in the policy contemplates that nuclear war can be a deliberate instrument of achieving our national security goals because it cannot be. But we cannot afford the risk that the Soviet leadership might entertain the illusion that nuclear war could be an option—or its threat a means of coercion—for them.

Question 3. What alternative targeting strategies were examined in the studies which preceded PD-59? On what grounds were such alternatives rejected? Was the President presented with alternatives to the targeting policy set forth in PD-59?

Answer. Alternative targeting strategies were addressed. The alternative strategies examined were: (a) strengthen existing policy; (b) focus more heavily on denying Soviets a favorable war outcome; (c) add higher confidence capability against some target systems; and (d) rely more heavily on assured destruction.

Under alternative (a) the forces and related C³I to accomplish this strategy would be given added endurance.

Alternative (b) placed more emphasis on targeting of Soviet (and non Soviet Warsaw Pact) nuclear and conventional forces to assure that they could not expect to achieve a favorable outcome or a victory, however victory might be defined, while retaining an assured destruction capability.

Alternative (c) would require greater capabilities against certain Soviet forces than in alternative (b).

The last alternative, (d), also would avoid the need to make any improvements to the flexibility and endurance of strategic forces and C³I.

Each of the alternatives was considered in light of: (a) what flexibility in our nuclear posture (i.e., how broad a range of options) is desired; (b) how much endurance do our forces and C³I require; (c) how much capability is considered necessary; (d) costs of achieving these capabilities.

These considerations were weighed against the ability of each of the alternatives to deter the Soviets, taking into account Soviet attitudes toward concepts of nuclear war and perceptions of our capabilities and will, as well as the perceptions of our friends and allies. In the final analysis, a policy was selected which was judged to be most realistic considering the current relationship between the U.S. and the U.S.S.R., and the world situation, and considering the continued aggressive pursuit by the Soviets of comprehensive improvement in all aspects of military force capabilities, both nuclear and conventional.

A belief in the continuing utility of war as a policy instrument and the need for military superiority fit well into Soviet discussions of victory in a global conflict. It should be noted that Soviet civilian leadership has made statements as to the destructiveness of nuclear war and the need for U.S.-U.S.S.R. arms control measures. At the same time, it is appropriate to take note of high level Soviet statements which tend to point to a somewhat different direction. For instance, the Chief of the Soviet Strategic Missile Forces has observed that:

The imperialist ideologists are trying to lull the vigilance of the world's people by having recourse to propoganda devices to the effect that there will be no victors in a future nuclear war. These false affirmations contradict the objective laws of history . . . Victory in war, if the imperialists succeed in starting it, will be on the side of world socialism and all progressive mankind. (Marshal of the Soviet Union N. I. Krylov, "The Instructive Lessons of History", *Sovetskaia Rossiia*, August 30, 1969, UNCLASSIFIED).

President (and Marshal of the Soviet Union) Brezhnev is also on record as saying that:

Let it be known to all that in a clash with any aggressor the Soviet Union will win a victory worthy of our great people, of the homeland of the October Revolution. (L. I. Brezhnev, Speech on the 50th Anniversary of the October Revolution, *Pravda*, November 4, 1967, UNCLASSIFIED).

In addition to such doctrinal presentations, the Soviet leaders make evident through their programs their concerns about the failure of deterrence as well as its maintenance, and their rejection of such concepts as minimum deterrence and assured destruction as all-purpose strategic theories. As Secretary Brown has indicated, what is most troublesome is the heavy emphasis in Soviet military doctrine on the acquisition of war-winning (whatever the duration of the conflict) capabilities, and the coincidence (in one sense or another of the word) between their programs and what have been alleged as the requirements of a deliberate war-winning strategy. This compilation of Soviet sources—which could be added to almost indefinitely—is sufficient to demonstrate that the Ogarkov quotation used in the speech quoted in the question was not an aberration. There are, to be sure, quotations to be found that indicate different views—partly because there are no doubt different views within the Soviet system, more often because they are addressed to different audiences. There is no question that the Soviet leadership understands that nuclear war would be immensely destructive and uncertain; it is to re-inforce that perception—and to add to it the conclusion, found only very infrequently if at all in public statements, that the U.S.S.R. could not fight and win such a war—that the countervailing strategy is directed.



FOR EXTERNAL PUBLICATION

Radio Moscow in Mandarin to China, Nov. 3, 1978.

"However, the fact is that China's digging deep tunnels can never protect the Chinese masses from nuclear bombing or even protect them from conventional heavy bombs."

* * * * *

Radio Moscow World Service in English, Nov. 16, 1978

"The U.S. Administration is going to launch a 5-year program of civil defense. - - - The only real safety for the Americans is strengthening friendship with the Soviet Union, not bomb shelters."

FOR INTERNAL PUBLICATION

Moscow Voyennyye Znaniya in Russian No. 5, May 1978, p. 33.

"It is appropriate to say that we still meet people who have an incorrect idea about defense possibilities. The significant increase in the devastating force of nuclear weapons compared with conventional means of attack makes some people feel that death is inevitable for all who are in the strike area. However, there is not and can never be a weapon from which there is no defense. With knowledge and the skillful use of contemporary procedures, each person can not only preserve his own life but can also actively work at his enterprise or institution. The only person who suffers is the one who neglects his civil defense studies."

~~TOP SECRET~~



DEPARTMENT OF DEFENSE

**POLICY GUIDANCE
FOR
THE EMPLOYMENT OF NUCLEAR
WEAPONS (NUWEP) (U)**

OCTOBER 1980

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THE SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

24 OCT 1980

MEMORANDUM FOR THE SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
ASSISTANT SECRETARIES OF DEFENSE
ASSISTANTS TO THE SECRETARY OF DEFENSE
DIRECTOR, NET ASSESSMENT
DIRECTORS OF DEFENSE AGENCIES
COMMANDERS-IN-CHIEF OF THE UNIFIED
AND SPECIFIED COMMANDS

SUBJECT: Policy Guidance for the Employment of Nuclear
Weapons (NUWEP)

To enhance deterrence and thereby reduce the dangers of nuclear war -- which is at once a military, a political, and a moral objective -- we must continue to pursue an integrated policy of force modernization, equitable and verifiable agreements on arms limitations, and more credible doctrine and plans for the employment of nuclear weapons. To insure achievement of the latter, the attached Policy Guidance for the Employment of Nuclear Weapons (NUWEP) sets forth in accordance with national guidance (PD-59) policy for the employment of nuclear weapons.

NUWEP has important elements of continuity with past guidance, but it is intended to yield improvements in employment flexibility, provide the basis for strengthening endurance of forces and supporting C³I, and produce better interaction between policymakers and military planners. We should seek through plans we develop, the forces and C³I systems we procure, the exercises that we conduct, and the operational practices we employ to convince our adversaries that they could not and would not "win" a nuclear war in any meaningful sense, however they may define winning. To this end each of you should fully understand and carefully take into account the attached policy guidance in future actions.

Harold Brown

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IV. STRATEGY FOR EMPLOYMENT

A. Flexibility

(U) The U.S. must have the capability to respond appropriately and effectively to any level of Soviet aggression, over the continuum of nuclear weapon employment options, ranging from use of a small number of strategic and/or theater nuclear capable weapon systems in a contingency operation, to a war employing all elements of our nuclear forces in attacks against a broad spectrum of enemy targets. The ability to respond with selectivity to less than an all-out Soviet attack in keeping with the needs of the situation is required in order to provide the National Command Authorities (NCA) with suitable alternatives, strengthen deterrence, and enhance the prospects of limiting escalation of the conflict. In addition to pre-planned options we need an ability to design employment plans on short notice in response to the latest and changing circumstances. To advance the goal of flexibility, planning will provide an objective-oriented series of building block options for the employment of nuclear weapons in ways that will enable us to employ them consonant with our objectives and the course of the conflict.

(S) As it evolves, the building block approach should provide plans which satisfy a hierarchy of targeting objectives and which will provide the NCA an improved capability to employ nuclear weapons effectively in as measured and controlled a manner as feasible in case of a limited conflict. It should provide complementary elements which can be combined in an integrated and discrete manner to provide larger and more comprehensive plans for achieving politico-military objectives in specific situations. The building block approach places emphasis on the individual elements, their objective utility, and our ability to employ them separately or in total. However, this does not imply that the total plan be finely divisible--practical realities cannot be ignored. The desire for enhanced flexibility in employment must be balanced by practical consideration of the increased complexity incurred in planning and operations, the need to avoid compromising the effectiveness and workability of the larger options, and the need to maintain a responsive decisionmaking and force execution process.

B. Endurance

(S) Endurance of forces and supporting C³I can strengthen the US defense posture by: (1) ensuring that the U.S. is not placed in a "use or lose" situation that might result in an unwarranted escalation of the conflict; (2) providing a hedge that allows us to adapt the employment of our forces across the spectrum of nuclear war; and (3) (b)(1)

(S)

~~SECRET~~